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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,297	08/14/2008	Ingo Speier	PH010528US2 (TTR071)	2651

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Philips Intellectual Property and Standards
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EXAMINER	
A, MINH D	

ART UNIT	PAPER NUMBER
2821	

MAIL DATE	DELIVERY MODE
05/24/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/583,297	SPEIER, INGO	
	Examiner	Art Unit	
	MINH D. A	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *RCE filed on 4/30/10*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/30/10 has been entered.

In virtue of this RCE, claims 1-17 are remain pending in the instant application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5, 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muthu et al by (U.S Patent No: 6,441,558) in view of Shimizu et al (U.S Patent No: 7,071,616).

Regarding claim 1, Muth et al disclose, in figures 1-2 that, a luminaire system for gating white light with a desired correlated colour temperature(col.2, lines 51-60), the

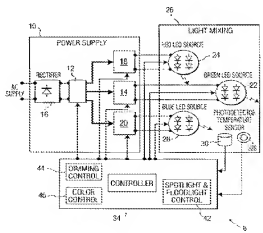


FIG. 1

luminaire system comprising: a light module(light mixing(26)) including:

i) one or more white light-emitting elements(light mixing(26)) for generating white light having a particular correlated colour temperature; ii) one or more first colour light-emitting elements(green 22) for generating light of a first colour; ii) one or more second(red(24)) colour light-emitting elements for generating light of a second colour; b)a feedback system(controller (34) includes spotlight& floodlight control(42), dimming control(44) and color control(46) for collecting operational temperature information regarding the light module(26); c) a drive(see at least drive(18)) and control system(see controller (34) having a spotlight& flood light control for receiving the signal or information from photo-detector (30)and sensor(328) for receiving said temperature information, and a dimming control(44) for controlling the supply of power to each of the one or more white light-emitting elements(22, 24 and 28), the one or more first colour light-emitting elements, and the one or more second colour light-emitting elements based on the temperature information and the desired correlated colour temperature; and d) an optical system(optical feedback sensor (30) and a temperature feedback sensor(32)) for extracting and mixing the light generated by the light module(26) thereby creating an output beam having the desired correlated colour temperature.Col.3, lines 3-43, col.4, lines 1-31.

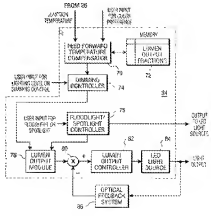


FIG. 2

Muthu et al do not clearly disclose that, the combination color light sources (Red, green, blue or yellow) includes a white light source to produce the colour temperature and wherein the one or more white light-emitting elements are configured to generate the first white light independent of each of the light of the first colour generated by the one or more first colour light-emitting elements and the light of the second colour generated by the one or more second light-emitting elements and wherein the one or more first colour light-emitting elements and the one or more second colour light-emitting elements are arranged in relationship with the one or more white light- emitting elements to provide the second white light having the desired correlated colour temperature when the light generated by the light module, including the first white light having the particular colour correlated temperature is extracted and mixed.

Fig.10

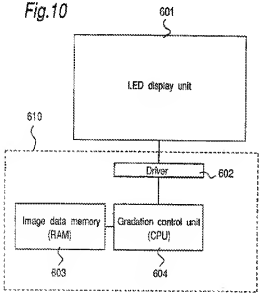
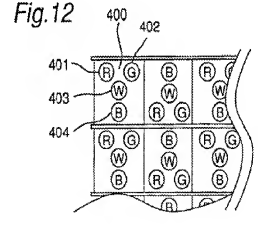


Fig.12



Shimizu et al disclose in figures 10 and 12 above that, the combination color light sources (Red, green, blue or yellow) includes a white light source (W) to produce the colour temperature (see figure 12 above) and wherein the one or more white light-emitting elements are configured to generate the first white light independent of each of the light of the first colour generated by the one or more first colour light-emitting elements and the light of the second colour generated by the one or more second light-emitting elements and wherein the one or more first colour light-emitting elements and the one or more second colour light-emitting elements are arranged in relationship with the one or more white light- emitting elements to provide the second white light having the desired correlated colour temperature when the light generated by the light module, including the first white light having the particular colour correlated temperature is extracted and mixe. Col.21, lines 5-67 to col.22, lines 1-55.

It would have been obvious to one having ordinary skill in the art to employ the white source combine colors (R,G,B) as disclosed in a light emitting device of Shimizu et al into the LED luminary light control system of Muthu to achieve the claimed invention. As disclosed in the light emitting device of Shimizu et al, the motivation for the combination would be to obtain the maximum luminous flux and would be to obtain sufficient quantity of light.

Regarding claim 2, Muthu et al and Shimizu et al disclose, wherein the feedback system(controller (34) further comprises one or more optical sensors (30, 328) and spotlight floodlight control(42) as shown in figure 2 above) for collecting optical information relating to light generated by the light module(26), wherein a drive

(18) and control system(34) receives said optical information and further controls the supply of power to each of the one or more white light-emitting elements, the one or more first colour light-emitting elements(22), and the one or more second colour light-emitting elements(24) based on the optical information. See figure 1-2 of Muthu et al.

Regarding claim 3, Muthu et al and Shimizu et al disclose wherein the light module(26) further comprises one or more third colour light-emitting elements(28) for generating light of a third colour. Figure 1-2 of Muthu et al above.

Regarding claim 4, Muthu et al and Shimizu et al disclose wherein the first colour light-emitting elements generate green light (22). Figure 1-2 of Muthu et al above.

Regarding claim 5, Muthu et al and Shimizu et al disclose wherein the second colour light-emitting elements generate blue or red light(24). Figure 1-2 of Muthu et al above.

Regarding claim 9, Muthu et al disclose a method for generating mixed white light having a desired correlated colour temperature, the method comprising: a) a controller (34) for generating white light having a particular correlated colour temperature by one or more white light-emitting elements(26); b) the controller(34) for generating and mixing in a predetermined portion of light generated by one or more first colour light-emitting elements(26); and c) the controller (34) for generating and mixing in a predetermined portion of light generated by one or more second colour light-emitting elements(22); thereby generating mixed white light having the desired correlated colour temperature. Figure 1-2 above that of Muthu et al, col.3, lines 3-43, col.4, lines 1-31.

Muthu et al do not clearly disclose that, the combination color light sources (Red, green, blue or yellow) includes a white light source to produce the colour temperature and generating from one or more white light-emitting elements, a first white light independent of each of the first coloured light and the second coloured light; and mixing the first coloured light, the second coloured light, and the first white light to generate a mixed white light having a desired correlated colour temperature; and arranging the one or more first colour light-emitting elements and the one or more second colour light-emitting elements in relationship with the one or more white light-emitting elements to generate the mixed white light having the desired correlated colour temperature when the first coloured light, the second coloured light, and the first white light are mixed.

Fig.10

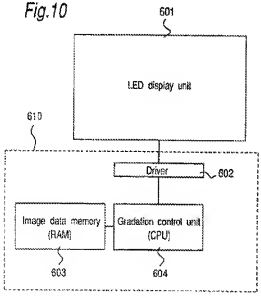
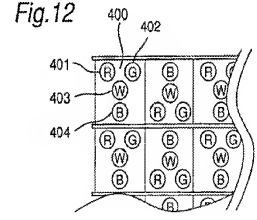


Fig.12



Shimizu et al disclose in figures 10 and 12 above that, the combination color light sources (Red, green, blue or yellow) includes a white light source (W) to produce the colour temperature (see figure 12 above) and arranging the one or more first colour light-emitting elements and the one or more second colour light-emitting elements in relationship with the one or more white light-emitting elements to generate the mixed white light having the desired correlated colour temperature when the first coloured light, the second coloured light, and the first white light are mixed. Col.21, lines 5-67 to col.22, lines 1-55.

It would have been obvious to one having ordinary skill in the art to employ the white source combine colors (R,G,B) as disclosed in a light emitting device of Shimizu et al into the LED luminary light control system of Muthu to achieve the claimed invention. As disclosed in the light emitting device of Shimizu et al, the motivation for the combination would be to obtain the maximum luminous flux and would be to obtain sufficient quantity of light.

Regarding claim 10, Muthu et al and Shimizu et al disclose that, the step of generating and mixing in light generated by one or more third colour fight-emitting elements.

Regarding claim 11, Muthu et al and Shimizu et al disclose further comprising the step of detecting an operational temperature of the one or more white light-emitting elements(22, 24 and 28), one or more first colour light-emitting elements and one or more second colour light- emitting elements and (controller (34) having a dimming control) for adjusting operation of the one or more first colour light-emitting elements

and one or more second colour light-emitting elements in response to the detected operational temperature. See figures 1-2 above of Muthu et al.

Regarding claim 12, Muthu et al and Shimizu et al disclose the step of detecting optical(optical sensors) characteristics of the mixed white light and a dimming control for adjusting operation of the one or more first colour light-emitting elements and one or more second colour light- emitting elements in response to the detected optical characteristics.

Regarding claim 13, Muthu et al and Shimizu et al disclose wherein the first colour light emitting elements generates green light.

Regarding claim 14, Muthu et al and Shimizu et al disclose, wherein the second colour light emitting elements generates red light.

4. Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Muthu et al by (U.S Patent No: 6,441,558) in view of Shimizu et al (U.S Patent No: as applied to claims 1-3 above, and further in view of Muth (U.S Patent No: 6, 507, 159).

Regarding claims 6, 15, Muthu et al and Shimizu et al disclose wherein the first colour light-emitting elements generate green light (22), the second colour light-emitting elements generate red light (24) and the third colour light-emitting elements generate green light (28). See figures 102 above of Muthu et al.

Muthu et al and Shimizu et al do not disclose, wherein the first colour light-emitting elements generate green light, the second colour light-emitting elements generate blue light and the third colour light-emitting elements generate red light.

Muth (159) disclose in figure 1 that, wherein the first colour light-emitting elements generate green light, the second colour light-emitting elements generate blue light and the third colour light-emitting elements generate red light dependent on the USEr input for setting the difference colours. Col.6, lines 11-22.

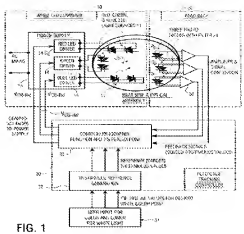


FIG. 1

It would have been obvious to one having ordinary skill in the art to employ the user input as suggested by Muthu et al and Shimizu et al disclose into the apparatus of Muthu (558) to achieve the claimed invention. As disclosed in Muthu (159), the motivation for the combination would be to obtain a flexible different color.

5. Claims 7-8 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Muthu et al by (U.S Patent No: 6,441,558) in view of Shimizu et al (U.S Patent No: 7,071,616) as applied to claims 1-2 above, and further in view of Lebens et al (U.S Patent No: 6,488,390).

Regarding claims 7-8,16-17, Muthu et al and Gotoh disclose all of the claimed subject matter, as expressly recited in claims 1-2, except for specifying that, wherein the white light-emitting elements, first colour light-emitting elements and the second colour light emitting elements being manufactured using a similar material technology and wherein the similar material technology is based on indium gallium nitride.

Lebens et al disclose the color LEDs and wherein the color LEDs having the material technology such as on indium gallium nitride. Col.6, lines 45-49.

It would have been obvious to one having ordinary skill in the art to employ the material such as the indium gallium nitride for color LEDs as suggested by Lebens into the plurality of LEDs of Muthu (558) and Gotoh to achieve the claimed invention. As disclosed in Lebens, the motivation for the combination would be to maintain a light intensity.

Citation of relevant prior art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Taura (U.S. Patent No. 6,670, 987) discloses a chrominance signal processing circuit.

Prior art Muth et al (Pub:No: US2002/0097000) discloses a white LED luminary light control.

Prior art Schuurmans(U.S. Patent No. 6,630,801) discloses a method and apparatus for sening the color point of an RGB LED.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 AM-2: 45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Owens Douglas W can be reached on (571) 272-1662. The

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Minh A

Art Unit 2821

Date 5/20/10

/Douglas W Owens/
Supervisory Patent Examiner, Art Unit 2821
May 22, 2010